

common medium uplink of a multiple access (MA) asynchronous network segment, wherein:

the CAC is arranged to accept or deny requests for new virtual connections (VCs) on the network segment and comprises means for allocating static resource to all virtual connections (VCs) or groupings of VCs accepted by the CAC and means for booking dynamic resource to the VCs or groupings of VCs that require guaranteed dynamic resource, and

the BoD is arranged to allocate dynamic resource on a request basis during an established virtual connection (VC) and comprises means for allocating dynamic resource in such a way that all VCs or groupings of VCs requesting dynamic resource are dynamically allocated requested dynamic resource up to at least the guaranteed dynamic resource which has been booked for them by the CAC.

13. (Amended) An integrated connection admission control (CAC) and bandwidth on demand control (BoD) system for allocating the resource of a common medium uplink of a multiple access (MA) asynchronous network segment, wherein:

the CAC is arranged to accept or deny requests for new virtual connections (VCs) on the network segment and comprises means for allocating static resource to all virtual connections (VCs) or groupings of VCs accepted by the CAC and means for booking dynamic resource to the VCs or groupings of VCs that require guaranteed dynamic resource, and

the BoD is arranged to allocate dynamic resource on a request basis during an established virtual connection (VC) and comprises means for allocating dynamic resource to VCs or to groupings of VCs requesting dynamic resource according to the following rules;

when the requested resource from the VC or group of VCs is less than or equal to the booked dynamic resource for the VC or group of VCs, the BoD allocates the VC or group of VCs all of the requested resource,

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when the requested resource from the VC or group of VCs is greater than the booked dynamic resource for the VC or group of VCs, the BoD allocates the VC or group of VCs the booked dynamic resource and additionally the BoD allocates the VC or group of VCs a share of the remainder of the requested resource, from the remaining resource capacity of the common medium uplink.

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23. (Amended) A method integrating a connection admission control (CAC) and a bandwidth on demand control (BoD) for allocating the resource of a common medium uplink of a multiple access (MA) asynchronous network segment, comprising the steps of:

the CAC accepting or denying a request for a new virtual connection (VC) on the network segment,

the CAC allocating static resource to all virtual connections (VCs) accepted by the CAC on a per VC or per grouping of VCs basis,

the CAC booking dynamic resource to the VCs that require guaranteed dynamic resource on a per VC or per group of VCs basis and,

the CAC allocating dynamic resource to VCs or to groupings of VCs requesting dynamic resource during an established VC in such a way that all VCs or groupings of VCs requesting dynamic resource are dynamically allocated requested dynamic resource up to at least the guaranteed dynamic resource which has been booked for them by the CAC

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